

A Method for Producing Cross-linked Hyaluronic acid – Protein Bio-composites

Abstract

This invention is concerned with a new method for producing cross-linked hyaluronic acid – protein bio-composites in various shapes. In the present process, a polysaccharide solution and a protein solution are mixed under moderate pH values in presence of salts to form a homogenous solution, which can be processed into various shapes, such as membrane, sponge, fiber, tube or micro-granular and so on. After then, the homogenous solution is subjected to a cross-linking reaction in organic solvent containing weak acid to produce an implantable bio composite material having excellent bio-compatibility, biodegradability, prolonged enzymatic degradation time, and good physical properties.